

**AMENDMENTS TO THE SPECIFICATION**

On page 20, please replace the original paragraph [0043] with the following amended paragraph [0043]:

The engine baseline modeling component 34 then performs another regression at 68. The engine baseline modeling component 34 applies a second regression to improve the parameter estimates by using a cleaned data set. Again, the metric component 44 determines additional residuals at 70. Alternatively, the metric component 44 can generate plots of the residuals if a user desires. At 72, the engine baseline modeling component determines whether there are any more segments that have to be analyzed. If there are more segments, then the next segment is analyzed at 74 and blocks 60-72 are repeated. This process continues until it is determined at 72 that there are no more segments. Once it has been determined that there are no more segments, then the model diagnostics component 36 evaluates the performance ~~of the~~ of the engine baseline model at 76 and generates certain statistical outputs that relate to the model.